

Applicants : Philip J. Quenzi et al.  
Serial No. : 10/804,325  
Page : 2

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the present application:

1 (currently amended): A soft landing control system for a screeding machine for smoothing and screeding a concrete surface, said screeding machine including a screed head assembly having a grade setting device and a vibrating member, said screeding machine including a screed head support for supporting said screed head assembly, said soft landing control system comprising:

a control operable to adjust the level of said vibrating member relative to said grade setting device to engage the vibrating member with the concrete surface at an onset of a screeding pass, said control being operable to automatically lower said vibrating member toward and into engagement with the concrete surface after said grade setting device is lowered to the desired grade level; and

an activating device, said control being operable to position said vibrating member at an initial location that is generally at or near the onset of the screeding pass and above and offset from the concrete surface and the desired grade level, said control being operable to automatically lower said vibrating member from said initial location and toward and into engagement with the concrete surface in response to a signal generated by said activating device, said activating device comprising at least one of a timing device, a concrete sensing device, a sensing device for sensing a concrete surface characteristic, a sensing device for sensing a degree of cure of the concrete, a sensing device for sensing a degree of processing of the concrete, and a device for determining a height of said screed head assembly above the concrete or the desired grade level.

2 (original): The soft landing control system of claim 1, wherein said control is operable to adjust the level of said vibrating member relative to said grade setting device via pivotal movement of said screed head assembly about a pivot axis extending generally along said screed head assembly and generally parallel to the desired grade of the concrete surface.

Applicants : Philip J. Oucenzi et al.  
Serial No. : 10/804,325  
Page : 3

3 (original): The soft landing control system of claim 2, wherein said control is operable to pivot a level sensing device relative to a frame of said screed head assembly, wherein a tilt control of said screeding machine is operable to pivot said screed head assembly in response to pivotal movement of said level sensing device to lower said vibrating member into engagement with the concrete surface.

4 (original): The soft landing control system of claim 2, wherein said control is operable to pivot said screed head assembly about said pivot axis via extension or retraction of at least one actuator of said screed head assembly.

5 (original): The soft landing control system of claim 1, wherein said control is operable to adjust the level of said vibrating member relative to said grade setting device via generally vertical movement of said vibrating member relative to a frame of said screed head assembly.

6 (previously presented): The soft landing control system of claim 1, wherein said activating device comprises a device for determining a height of said screed head assembly, said control automatically lowering said vibrating member toward and into engagement with the concrete surface in response to a determination that said screed head assembly is at a predetermined height above the desired grade level.

7 (previously presented): The soft landing control system of claim 6, wherein said activating device comprises a timing device, said control being operable to lower said vibrating member toward and into engagement with the concrete surface in response to a signal from said timing device indicative of a lapsing of a period of time following the determination that said screed head assembly is at the predetermined height.

8 (previously presented): The soft landing control system of claim 1, wherein said activating device comprises a timing device, said control being operable to lower said vibrating member toward and into engagement with the concrete surface after a period of time following one of (a) actuation of a user input and (b) a signal from one of a concrete sensing device, a sensing device for sensing a concrete

Applicants : Philip J. Ouenzi et al.  
Serial No. : 10/804,325  
Page : 4

surface characteristic, a sensing device for sensing a degree of cure of the concrete, a sensing device for sensing a degree of processing of the concrete, and a device for determining a height of said grade setting device above the concrete.

9 (previously presented): The soft landing control system of claim 1, wherein said control is responsive to a user input, said activating device comprising a timing device, said control being operable to lower said vibrating member toward and into engagement with the concrete surface in response to a signal from said timing device that is indicative of a lapsing of a period of time following actuation of the user input.

10 (previously presented): The soft landing control system of claim 1, wherein said activating device comprises a sensing device for sensing uncured concrete at or near said vibrating member.

11 (previously presented): A soft landing control system for a screeding machine for smoothing and screeding a concrete surface, said screeding machine including a screed head assembly having a grade setting device and a vibrating member, said screeding machine including a screed head support for supporting said screed head assembly, said soft landing control system comprising:

a control operable to adjust the level of said vibrating member relative to said grade setting device, said control being operable to automatically lower said vibrating member toward and into engagement with the concrete surface after said grade setting device is lowered to the desired grade level, said control being operable to automatically lower said vibrating member into engagement with the concrete surface in response to an activating event, said activating event comprising a detection of uncured concrete at or near said vibrating member, wherein said control receives an input from a vibration sensing device operable to sense the vibration at one of the concrete surface and said vibrating member, said control lowering said vibrating member in response to said control determining that the sensed vibration is indicative of vibration at uncured and not previously screeded concrete.

12 (previously presented): A soft landing control system for a screeding machine for smoothing and screeding a concrete surface, said screeding machine including a screed head assembly having a grade

Applicants : Philip J. Quenzi et al.  
Serial No. : 10/804,325  
Page : 5

setting device and a vibrating member, said screeding machine including a screed head support for supporting said screed head assembly, said soft landing control system comprising:

a control operable to adjust the level of said vibrating member relative to said grade setting device, said control being operable to automatically lower said vibrating member toward and into engagement with the concrete surface after said grade setting device is lowered to the desired grade level, said control being operable to automatically lower said vibrating member into engagement with the concrete surface in response to an activating event, said activating event comprising a detection of uncured concrete at or near said vibrating member, wherein said control receives an input from a vertically movable sensing device, wherein movement of said vertically movable sensing device is affected by the type of concrete or degree of cure of the concrete at which said sensing device is positioned, said control lowering said vibrating member in response to said input being indicative of said sensing device engaging uncured and not previously screeded concrete.

13 (previously presented): A soft landing control system for a screeding machine for smoothing and screeding a concrete surface, said screeding machine including a screed head assembly having a grade setting device and a vibrating member, said screeding machine including a screed head support for supporting said screed head assembly, said soft landing control system comprising:

a control operable to adjust the level of said vibrating member relative to said grade setting device, said control being operable to automatically lower said vibrating member toward and into engagement with the concrete surface after said grade setting device is lowered to the desired grade level, said control being operable to automatically lower said vibrating member into engagement with the concrete surface in response to an activating event, said activating event comprising a detection of uncured concrete at or near said vibrating member, wherein said control receives an input from a switch positioned in front of said grade setting device, wherein said switch communicates an input signal to said control when said switch contacts excess uncured concrete in front of said grade setting device.

14 (original): The soft landing control system of claim 13, wherein said control includes a timing device and is operable to lower said vibrating member into engagement with the concrete surface after

Applicants : Philip J. Quenzi et al.  
Serial No. : 10/804,325  
Page : 6

a period of time following said activating event.

15 (currently amended): A soft landing control system for a screeding machine for smoothing and screeding a concrete surface, said screeding machine including a screed head assembly having a grade setting device and a vibrating member, said screeding machine including a screed head support for supporting said screed head assembly, said soft landing control system comprising:

a control operable to adjust the level of said vibrating member relative to said grade setting device to engage the vibrating member with the concrete surface at an onset of a screeding pass, said control being operable to position said vibrating member at an initial location that is generally at or near the onset of the screeding pass and above and offset from the concrete surface and from a desired grade level, said control being operable to automatically lower said vibrating member toward and into engagement with the concrete surface after said grade setting device is lowered to the desired grade level, said control being operable to automatically lower said vibrating member into engagement with the concrete surface in response to an activating event, wherein said activating event comprises a detection of said screed head assembly being at a predetermined height that is indicative of said grade setting device being at a predetermined distance above the desired grade level.

16 (original): The soft landing control system of claim 15, wherein said predetermined height is determined in response to a laser receiver attached to said screed head assembly detecting a laser reference plane.

17 (original): The soft landing control system of claim 15, wherein said control includes a timing device and is operable to lower said vibrating member into engagement with the concrete surface after a period of time following said activating event.

18-55 (canceled).